



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829

PAT QUINN, GOVERNOR

LISA BONNETT, DIRECTOR

217/782-0610

November 21, 2014

Fox River Water Reclamation District  
P.O. Box 328  
Elgin, Illinois 60121-0328

**MAJOR**

Re: - Fox River Water Reclamation District  
Fox River Water Reclamation District - North WRF  
NPDES Permit No. IL0028665  
Final Permit

Gentlemen:

Attached is the final NPDES Permit for your discharge. The Permit as issued covers discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the Permit could result in civil and/or criminal penalties. The Illinois Environmental Protection Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge.

The Agency has begun a program allowing the submittal of electronic Discharge Monitoring Reports (NetDMRs) instead of paper Discharge Monitoring Reports (DMRs). If you are interested in NetDMRs, more information can be found on the Agency website, <http://epa.state.il.us/water/net-dmr/index.html>. If your facility is not registered in the NetDMR program, a supply of preprinted paper DMR Forms for your facility will be sent to you prior to the initiation of DMR reporting under the reissued permit. Additional information and instructions will accompany the preprinted DMRs upon their arrival.

The attached Permit is effective as of the date indicated on the first page of the Permit. Until the effective date of any re-issued Permit, the limitations and conditions of the previously-issued Permit remain in full effect. You have the right to appeal any condition of the Permit to the Illinois Pollution Control Board within a 35 day period following the issuance date.

Should you have questions concerning the Permit, please contact Jamie Cowles at 217/782-0610.

Sincerely,

Alan Keller, P.E.  
Manager, Permit Section  
Division of Water Pollution Control

SAK:JMC:12011804.bah

Attachment: Final Permit

cc: Records  
Compliance Assurance Section  
Des Plaines Region  
Billing

SEPARATION OF RECORDS MANAGEMENT  
RELEASABLE

MAR 05 2015

REVIEWER: JKS

**MAJOR**

NPDES Permit No. IL0028665

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

Reissued (NPDES) Permit

Expiration Date: November 30, 2017

Issue Date: November 21, 2014

Effective Date: December 1, 2014

**Name and Address of Permittee:**

Fox River Water Reclamation District  
P.O. Box 328  
Elgin, Illinois 60121-0328

**Facility Name and Address:**

Fox River Water Reclamation District - North WRF  
Clifford Avenue & Frazier Avenue  
Elgin, Illinois 60121  
(Kane County)

Receiving Waters: Fox River

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of the Ill. Adm. Code, Subtitle C, Chapter I, and the Clean Water Act (CWA), the above-named Permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the Permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.



Alan Keller, P.E.  
Manager, Permit Section  
Division of Water Pollution Control

SAK:JMC:1211804bah

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NPDES Permit No. IL0028885

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): B01 STP Internal Outfall

Load limits computed based on a design average flow (DAF) of 7.75 MGD (design maximum flow (DMF) of 22.04 MGD).

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

| <u>Parameter</u>                       | <u>LOAD LIMITS (lb/day)</u>  |                       |                       | <u>CONCENTRATION LIMITS mg/L</u> |                       |                       | <u>Sample Frequency</u> | <u>Sample Type</u> |
|--|--|-----------------------|-----------------------|----------------------------------|-----------------------|-----------------------|-------------------------|--------------------|
|  | <u>Monthly Average</u>   | <u>Weekly Average</u> | <u>Daily Maximum</u>  | <u>Monthly Average</u>           | <u>Weekly Average</u> | <u>Daily Maximum</u>  |                         |                    |
| Flow (MGD)                             |  |                       |                       |                                  |                       |                       | Continuous              |                    |
| CBOD <sub>5</sub> <sup>***</sup>       | 1283 (3676)  | 2585 (7353)           |                       | 20                               | 40                    |                       | 2 Days/Week             | Composite          |
| Suspended Solids <sup>†</sup>          | 1616 (4595)  | 2909 (8272)           |                       | 25                               | 45                    |                       | 2 Days/Week             | Composite          |
| pH                                     | Shall be in the range of 6 to 9 Standard Units                                   |                       |                       |                                  |                       |                       | 2 Days/Week             | Grab               |
| Fecal Coliform <sup>***</sup>          | The monthly geometric mean shall not exceed 200 per 100 mL (May through October) |                       |                       |                                  |                       |                       | 5 Days/Week             | Grab               |
| Chlorine Residual <sup>***</sup>       |  |                       |                       | 0.10                             |                       | 0.15                  | 5 Days/Week             | Grab               |
| Ammonia Nitrogen:                      |  |                       |                       |                                  |                       |                       |                         |                    |
| As (N)                                 |  |                       |                       |                                  |                       |                       |                         |                    |
| April-October                          | 97 (276)   |                       | 175 (496)             | 1.5                              |                       | 2.7                   | 2 Days/Week             | Composite          |
| Nov. - Feb.                            |  |                       | 213 (607)             |                                  |                       | 3.3                   | 2 Days/Week             | Composite          |
| March                                  | 97 (276)   | 246 (696)             | 259 (735)             | 1.5                              | 3.8                   | 4.0                   | 2 Days/Week             | Composite          |
|  |  |                       | <u>Annual Average</u> |                                  |                       | <u>Annual Average</u> |                         |                    |
| Total Phosphorus (as P) <sup>***</sup> |  |                       | 65 (184)              |                                  |                       | 1.0                   | 1 Day/Week              | Composite          |
| Total Nitrogen                         | Monitor Only   |                       |                       |                                  |                       |                       | 1 Day/Month             | Composite          |
| Dissolved Phosphorus                   | Monitor Only   |                       |                       |                                  |                       |                       | 1 Day/Month             | Composite          |
| Nitrate/Nitrite                        | Monitor Only   |                       |                       |                                  |                       |                       | 1 Day/Month             | Composite          |
| Total Kjeldahl Nitrogen (TKN)          | Monitor Only   |                       |                       |                                  |                       |                       | 1 Day/Month             | Composite          |
| Alkalinity                             | Monitor Only   |                       |                       |                                  |                       |                       | 1 Day/Month             | Composite          |
| Temperature                            | Monitor Only   |                       |                       |                                  |                       |                       | 1 Day/Month             | Grab               |

(Continued on next page)

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NPDES Permit No. IL0028665

Effluent Limitations, Monitoring, and Reporting

## FINAL

Discharge Number(s) and Name(s): B01 STP Internal Outfall (continued)

| <u>Parameter</u> | <u>LOAD LIMITS lbs/day</u> |  | <u>CONCENTRATION</u>                             |   |                          |                             |                        |
|------------------|----------------------------|--|--|---|--------------------------|-----------------------------|------------------------|
|                  | <u>DAF (DMF)*</u>          |  | <u>LIMITS mg/L</u>                               |   |                          |                             |                        |
|                  |                            |  | <u>Monthly<br/>Average<br/>not less<br/>than</u> | <u>Weekly<br/>Average<br/>not less<br/>than</u> | <u>Daily<br/>Minimum</u> | <u>Sample<br/>Frequency</u> | <u>Sample<br/>Type</u> |
| Dissolved Oxygen |                            |  |  |   |                          |                             |                        |
| March-July       |                            |  | N/A  | 6.0   | 5.0                      | 2 Days/Week                 | Grab                   |
| August-February  |                            |  | 5.5  | 4.0   | 3.5                      | 2 Days/Week                 | Grab                   |

\*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.

\*\*Carbonaceous BOD<sub>5</sub> (CBOD<sub>5</sub>) testing shall be in accordance with 40 CFR 136.

\*\*\*See Special Condition 9.

\*\*\*\*See Special Condition 18. The annual phosphorus limit has been included in the permit pending completion of the Fox River Implementation Plan (FRIP).

Flow shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

Fecal Coliform shall be reported on the DMR as a monthly geometric mean and daily maximum. No more than 10% of the samples during the month shall exceed 400 per 100 ml.

pH shall be reported on the DMR as minimum and maximum value.

Chlorine Residual shall be reported on DMR as monthly average and daily maximum value.

Dissolved oxygen shall be reported on the DMR as a minimum value.

Total Nitrogen shall be reported on the DMR as a daily maximum value.

The rolling annual monthly average total phosphorus values shall be computed monthly beginning 12 months after the effective date of the permit and shall include the previous 12 months of data. The rolling annual monthly average, monthly average and daily maximum values for total phosphorus shall be reported on the DMR. The rolling annual monthly average shall be calculated by adding the sum of the total phosphorus monitoring values from the previous 12 months of data expressed in milligrams/liter and divided by the number of samples collected.

<sup>1</sup> BOD<sub>5</sub> and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105. The percent removal need not be reported to the IEPA on DMRs but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent CBOD<sub>5</sub> concentration to determine the effluent BOD<sub>5</sub> concentration or laboratory analysis for the determination of BOD<sub>5</sub> may be used.

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NPDES Permit No. IL0028865

Effluent Limitations, Monitoring, and Reporting

## FINAL

Discharge Number(s) and Name(s): A01 Excess Flow Outfall (Flow in excess of 22.04 MGD).

These flow facilities shall not be utilized until the main treatment facility is receiving its design maximum flow \*(Flow in excess of 22.04 MGD).

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

CONCENTRATION  
LIMITS (mg/L)

| <u>Parameter</u>        | <u>Monthly Average</u>                        | <u>Weekly Average</u> | <u>Sample Frequency</u> | <u>Sample Type</u> |
|-------------------------|---|-----------------------|-------------------------|--------------------|
| Total Flow (MG)         |   |                       | Daily When Discharging  | Continuous         |
| Fecal Coliform          | Daily Maximum Shall not Exceed 400 per 100 mL |                       | Daily When Discharging  | Grab               |
| BOD <sub>5</sub>        |   | Monitor Only          | Daily When Discharging  | Grab               |
| Suspended Solids        |   | Monitor Only          | Daily When Discharging  | Grab               |
| Ammonia Nitrogen (as N) |   | Monitor Only          | Daily When Discharging  | Grab               |
| Total Phosphorus (as P) |   | Monitor Only          | Daily When Discharging  | Grab               |

\*An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 7.

The duration of each A01 discharge and rainfall event (i.e., start and ending time) including rainfall intensity shall be provided in the comment section of the DMR.

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.

Report the number of days of discharge in the comments section of the DMR.

Fecal Coliform shall be reported on the DMR as daily maximum value.

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a daily maximum value.

Ammonia Nitrogen shall be reported on the DMR as a daily maximum value.

Total Phosphorus shall be reported on the DMR as a daily maximum value.

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NPDES Permit No. IL0028685

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 001 Combined Discharge from A01 and B01 Outfall\*

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

**CONCENTRATION  
LIMITS (mg/L)**

| <u>Parameter</u>           | <u>Monthly Average</u>                         | <u>Weekly Average</u> | <u>Sample Frequency</u>       | <u>Sample Type</u> |
|----------------------------|--|-----------------------|-------------------------------|--------------------|
| Total Flow (MG)            |  |                       | Daily When A01 is Discharging | Continuous         |
| BOD <sub>5</sub> **        | 30   | 45                    | Daily When A01 is Discharging | Grab               |
| Suspended Solids**         | 30   | 45                    | Daily When A01 is Discharging | Grab               |
| pH                         | Shall be in the range of 6 to 9 Standard Units |                       | Daily When A01 is Discharging | Grab               |
| Chlorine Residual          | 0.75   |                       | Daily When A01 is Discharging | Grab               |
| Ammonia Nitrogen (as N)*** | Monitor only                                   |                       | Daily When A01 is Discharging | Grab               |
| Total Phosphorus (as P)    | Monitor only                                   |                       | Daily When A01 is Discharging | Grab               |
| Dissolved Oxygen           | Monitor only                                   |                       | Daily When A01 is Discharging | Grab               |

\*An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 7.

\*\*BOD<sub>5</sub> and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105. The percent removal need not be reported to the IEPA on DMRs but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent CBOD<sub>5</sub> concentration to determine the effluent BOD<sub>5</sub> concentration or laboratory analysis for the determination of BOD<sub>5</sub> may be used.

\*\*\*See Special Condition 21.

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.

Report the number of days of discharge in the comments section of the DMR.

Chlorine Residual shall be reported on the DMR as monthly average value.

pH shall be reported on the DMR as a minimum and a maximum value.

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a monthly and weekly average concentration.

A monthly average value for ammonia shall be computed for each month that A01 discharges beginning one month after the effective date of the permit. A monthly average concentration shall be determined by combining data collected from 001 and B01 (only B01 data from days when A01 is not discharging) for the reporting period. These monitoring results shall be submitted to the Agency on the DMR. Ammonia Nitrogen shall also be reported on the DMR as a maximum value.

A monthly and weekly average value for Dissolved Oxygen (DO) shall be computed for each month that A01 discharges beginning one month after the effective date of the permit. The monthly and weekly average concentrations for 001 shall be determined by combining data collected from 001 and B01 (only B01 data from days when A01 is not discharging) for the reporting period. These monitoring

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NPDES Permit No. IL0028665

Influent Monitoring and Reporting

The influent to the plant shall be monitored as follows:

| <u>Parameter</u> | <u>Sample Frequency</u>                                  | <u>Sample Type</u> |
|------------------|--|--------------------|
| Flow (MGD)       | Continuous   |                    |
| BOD <sub>5</sub> | 2 Days/Week and Daily When<br>Outfall A01 is Discharging | Composite          |
| Suspended Solids | 2 Days/Week and Daily When<br>Outfall A01 is Discharging | Composite          |

Influent samples shall be taken at a point representative of the influent.

Flow (MGD) shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a monthly average concentration.

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NPDES Permit No. IL0028665

Special Conditions

**SPECIAL CONDITION 1.** This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws and regulations.

**SPECIAL CONDITION 2.** The use or operation of this facility shall be by or under the supervision of a Certified Class 1 operator.

**SPECIAL CONDITION 3.** The IEPA may request in writing submittal of operational information in a specified form and at a required frequency at any time during the effective period of this Permit.

**SPECIAL CONDITION 4.** The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR § 122.63 and Without Public Notice.

**SPECIAL CONDITION 5.** The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

**SPECIAL CONDITION 6.** The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/net-dmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 25th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using NetDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency  
Division of Water Pollution Control  
Attention: Compliance Assurance Section, Mail Code # 19  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

**SPECIAL CONDITION 7.** The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.

**SPECIAL CONDITION 8.**

- A. For Outfall Number B01: Samples for all effluent limitations and monitoring parameters applicable to Outfall B01 shall be taken at a point representative of the flows from Outfall B01 but prior to entry into the receiving stream. On days when there are discharges from Outfall A01, samples for all effluent limitations and monitoring parameters applicable to Outfall B01 shall be representative of discharges from B01 and shall be taken at a point prior to admixture with discharges from Outfall A01.
- B. For Outfall Number A01: Samples for all effluent limitations and monitoring parameters applicable to Outfall A01 shall be taken at a point representative of the discharge from Outfall A01 and shall be taken at a point prior to admixture with discharges from Outfall B01.
- C. For Outfall Number 001: Samples for all effluent limitations and monitoring parameters applicable to Outfall 001 shall be taken at a point representative of the discharge from Outfall 001 but prior to entry into the receiving stream and shall include all flow from Outfalls A01 and B01. On days when there are no discharges through Outfall A01, samples for discharges through Outfall 001 can be taken at the location of sampling for Outfall B01. When there are discharges from Outfall A01, samples for all effluent limitations and monitoring parameters applicable to Outfall 001 shall be representative of the discharge from Outfall 001 and shall be taken at a point after flows from Outfalls A01 and B01 are mixed.

**SPECIAL CONDITION 9.** Fecal Coliform limits for Discharge Number B01 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

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NPDES Permit No. IL0028865

Special Conditions

and reporting page of this Permit.

SPECIAL CONDITION 10.A. Publicly Owned Treatment Works (POTW) Pretreatment Program General Provisions

1. The Permittee shall implement and enforce its approved Pretreatment Program which was approved on September 3, 1985 and all approved subsequent modifications thereto. The Permittee shall maintain legal authority adequate to fully implement the Pretreatment Program in compliance with Federal (40 CFR 403), State, and local laws and regulations. All definitions in this section unless specifically otherwise defined in this section, are those definitions listed in 40 CFR 403.3. USEPA Region 5 is the Approval Authority for the administration of pretreatment programs in Illinois. The Permittee shall:
  - a. Develop and implement procedures to ensure compliance with the requirements of a pretreatment program as specified in 40 CFR 403.8 (f) (2).
  - b. Carry out independent inspection and monitoring procedures at least once per year, which will determine whether each significant industrial user (SIU) is in compliance with applicable pretreatment standards;
  - c. Perform an evaluation, at least once every two (2) years, to determine whether each SIU needs a slug control plan. If needed, the SIU slug control plan shall include the items specified in 40 CFR 403.8(f)(2)(vi).
  - d. Update its inventory of Industrial Users (IUs) at least annually and as needed to ensure that all SIUs are properly identified, characterized, and categorized;
  - e. Receive and review self monitoring and other IU reports to determine compliance with all pretreatment standards and requirements, and obtain appropriate remedies for noncompliance by any IU with any pretreatment standard and/or requirement;
  - f. Investigate instances of noncompliance, collect and analyze samples, and compile other information with sufficient care as to produce evidence admissible in enforcement proceedings, including judicial action;
  - g. Require development, as necessary, of compliance schedules by each industrial user to meet applicable pretreatment standards; and,
  - h. Maintain an adequate revenue structure and staffing level for continued operation of the Pretreatment Program.
2. The Permittee shall issue/reissue permits or equivalent control mechanisms to all SIUs prior to expiration of existing permits or prior to commencement of discharge in the case of new discharges. The permits at a minimum shall include the elements listed in 40 CFR § 403.8(f)(1)(ii)(B).
3. The Permittee shall develop, maintain, and enforce, as necessary, local limits to implement the general and specific prohibitions in 40 CFR § 403.5 which prohibit the introduction of any pollutants which cause pass through or interference and the introduction of specific pollutants to the waste treatment system from any source of nondomestic discharge.
4. In addition to the general limitations expressed in Paragraph 3 above, applicable pretreatment standards must be met by all industrial users of the POTW. These limitations include specific standards for certain industrial categories as determined by Section 307(b) and (c) of the Clean Water Act, State limits, or local limits, whichever are more stringent.
5. The USEPA and IEPA individually retain the right to take legal action against any industrial user and/or the POTW for those cases where an industrial user has failed to meet an applicable pretreatment standard by the deadline date regardless of whether or not such failure has resulted in a permit violation.
6. The Permittee shall establish agreements with all contributing jurisdictions, as necessary, to enable it to fulfill its requirements with respect to all IUs discharging to its system.
7. Unless already completed, the Permittee shall within six (6) months of the effective date of this Permit submit to USEPA and IEPA a proposal to modify and update its approved Pretreatment Program to incorporate Federal revisions to the general pretreatment regulations. The proposal shall include all changes to the approved program and the sewer use ordinance which are necessary to incorporate the revisions of the Pretreatment Streamlining Rule (which became effective on November 14,

Special Conditions

8. Within 12 months from the effective date of this permit, the Permittee shall conduct a technical re-evaluation of its local limitations consistent with U.S. EPA's Local Limits Development Guidance (July 2004), and submit the evaluation and any proposed revisions to its local limits to IEPA and U.S. EPA Region 5 for review and approval. U.S. EPA Region 5 will request Permittee to submit the evaluation and any proposed revisions to its local limits on the spreadsheet found at <http://www.epa.gov/region5/water/npdes/etk/localmt.XLS>. To demonstrate technical justification for new local industrial user limits or justification for retaining existing limits, the following information must be submitted to U.S. EPA:
- a. Total plant flow
  - b. Domestic/commercial pollutant contributions for pollutants of concern
  - c. Industrial pollutant contributions and flows
  - d. Current POTW pollutant loadings, including loadings of conventional pollutants
  - e. Actual treatment plant removal efficiencies, as a decimal (primary, secondary, across the wastewater treatment plant)
  - f. Safety factor to be applied
  - g. Identification of applicable criteria:
    - i. NPDES permit conditions
      - Specific NPDES effluent limitations
      - Water-quality criteria
      - Whole effluent toxicity requirements
      - Criteria and other conditions for sludge disposal
    - ii. Biological process inhibition
      - Nitrification
      - Sludge digester
    - iii. Collection system problems
  - h. The Permittee's sludge disposal methods (land application, surface disposal, incineration, landfill)
  - i. Sludge flow to digester
  - j. Sludge flow to disposal
  - k. % solids in sludge to disposal, not as a decimal
  - l. % solids in sludge to digester, not as a decimal
  - m. Plant removal efficiencies for conventional pollutants
  - n. If revised industrial user discharge limits are proposed, the method of allocating available pollutants loads to industrial users
  - o. A comparison of maximum allowable headworks loadings based on all applicable criteria listed in g. above
  - p. Pollutants that have caused:
    - i. Violations or operational problems at the POTW, including conventional pollutants
    - ii. Fires and explosions
    - iii. Corrosion
    - iv. Flow obstructions
    - v. Increased temperature in the sewer system
    - vi. Toxic gases, vapors or fumes that caused acute worker health and safety problems
    - vii. Toxicity found through Whole Effluent Toxicity testing
    - viii. Inhibition
  - q. Pollutants designated as "monitoring only" in the NPDES permit
  - r. Supporting data, assumptions, and methodologies used in establishing the information a through q above

B. Reporting and Records Requirements

1. The Permittee shall provide an annual report briefly describing the permittee's pretreatment program activities over the previous calendar year. Permittees who operate multiple plants may provide a single report providing all plant-specific reporting requirements are met. Such report shall be submitted no later than April 28 of each year to USEPA, Region 5, 77 West Jackson Blvd., Chicago, Illinois 60604, Attention: Water Enforcement & Compliance Assurance Branch, and shall be in the format set forth in IEPA's POTW Pretreatment Report Package which contains information regarding:
- a. An updated listing of the Permittee's significant industrial users, indicating additions and deletions from the previous year, along with brief explanations for deletions. The list shall specify which categorical Pretreatment standards, if any, are applicable to each Industrial User.
  - b. A descriptive summary of the compliance activities including numbers of any major enforcement actions, (i.e., administrative orders, penalties, civil actions, etc.), and the outcome of those actions. This includes an assessment of

Special Conditions

- c. A description of all substantive changes made to the Permittee's Pretreatment Program. Changes which are "substantial modifications" as described in 40 CFR § 403.18(c) must receive prior approval from the USEPA.
  - d. Results of sampling and analysis of POTW influent, effluent, and sludge.
  - e. A summary of the findings from the priority pollutants sampling. As sufficient data becomes available the IEPA may modify this Permit to incorporate additional requirements relating to the evaluation, establishment, and enforcement of local limits for organic pollutants. Any permit modification is subject to formal due process procedures pursuant to State and Federal law and regulation. Upon a determination that an organic pollutant is present that causes interference or pass through, the Permittee shall establish local limits as required by 40 CFR § 403.5(c).
2. The Permittee shall maintain all pretreatment data and records for a minimum of three (3) years. This period shall be extended during the course of unresolved litigation or when requested by the IEPA or the Regional Administrator of USEPA. Records shall be available to USEPA and the IEPA upon request.
  3. The Permittee shall establish public participation requirements of 40 CFR 25 in implementation of its Pretreatment Program. The Permittee shall at least annually, publish the names of all IUs which were in significant noncompliance (SNC), as defined by 40 CFR § 403.8(f)(2)(vii), in a newspaper of general circulation that provides meaningful public notice within the jurisdictions served by the Permittee or based on any more restrictive definition of SNC that the POTW may be using.
  4. The Permittee shall provide written notification to the USEPA, Region 5, 77 West Jackson Blvd., Chicago, Illinois 60604, Attention: NPDES Programs Branch and to the Deputy Counsel for the Division of Water Pollution Control, IEPA, 1021 North Grand Avenue East, P.O. Box 18276, Springfield, Illinois 62794-8276 within five (5) days of receiving notice that any Industrial User of its sewage treatment plant is appealing to the Circuit Court any condition imposed by the Permittee in any permit issued to the Industrial User by Permittee. A copy of the Industrial User's appeal and all other pleadings filed by all parties shall be mailed to the Deputy Counsel within five (5) days of the pleadings being filed in Circuit Court.
- C. Monitoring Requirements
1. The Permittee shall monitor its influent, effluent and sludge and report concentrations of the following parameters on monitoring report forms provided by the IEPA and include them in its annual report. Samples shall be taken at quarterly intervals at the indicated reporting limit or better and consist of a 24-hour composite unless otherwise specified below. Sludge samples shall be taken of final sludge and consist of a grab sample reported on a dry weight basis.

| STORET<br>CODE | PARAMETER  | Minimum<br>reporting limit |
|----------------|--|----------------------------|
| 01097          | Antimony   | 0.07 mg/L                  |
| 01002          | Arsenic  | 0.05 mg/L                  |
| 01007          | Barium   | 0.5 mg/L                   |
| 01012          | Beryllium  | 0.005 mg/L                 |
| 01027          | Cadmium  | 0.001 mg/L                 |
| 01032          | Chromium (hex) (grab not to exceed 24 hours)*                | 0.01 mg/L                  |
| 01034          | Chromium (total)   | 0.05 mg/L                  |
| 01042          | Copper   | 0.005 mg/L                 |
| 00718          | Cyanide* (grab) (available **** or amenable to chlorination) | 5.0 ug/L                   |
| 00720          | Cyanide (total) (grab)                                       | 5.0 ug/L                   |
| 00851          | Fluoride*  | 0.1 mg/L                   |
| 01045          | Iron (total)   | 0.5 mg/L                   |
| 01046          | Iron (Dissolved)*  | 0.5 mg/L                   |
| 01051          | Lead   | 0.05 mg/L                  |
| 01055          | Manganese  | 0.5 mg/L                   |
| 71800          | Mercury (effluent grab)***                                   | 1.0 ng/L **                |
| 01067          | Nickel   | 0.005 mg/L                 |
| 00556          | Oil (hexane soluble or equivalent) (Grab Sample only)*       | 5.0 mg/L                   |
| 32730          | Phenols (grab)   | 0.005 mg/L                 |
| 01147          | Selenium   | 0.005 mg/L                 |
| 01077          | Silver (total)   | 0.003 mg/L                 |
| 01059          | Thallium   | 0.3 mg/L                   |
| 01092          | Zinc   | 0.025 mg/L                 |

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All sample containers, preservatives, holding times, analyses, method detection limit determinations and quality assurance/quality control requirements shall be in accordance with 40 CFR 136.

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

\* Influent and effluent only

\*\*1 ng/L = 1 part per trillion.

\*\*\*Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E, other approved methods may be used for influent (composite) and sludge.

\*\*\*\*USEPA Method OIA-1677.

2. The Permittee shall conduct an analysis for the one hundred and ten (110) organic priority pollutants identified in 40 CFR 122 Appendix D, Table II as amended. This monitoring shall be done annually and reported on monitoring report forms provided by the IEPA and shall consist of the following:
  - a. The influent and effluent shall be sampled and analyzed for the one hundred and ten (110) organic priority pollutants. The sampling shall be done during a day when industrial discharges are expected to be occurring at normal to maximum levels.
 

Samples for the analysis of acid and base/neutral extractable compounds shall be 24-hour composites.

Five (5) grab samples shall be collected each monitoring day to be analyzed for volatile organic compounds. A single analysis for volatile pollutants (Method 624) may be run for each monitoring day by compositing equal volumes of each grab sample directly in the GC purge and trap apparatus in the laboratory, with no less than one (1) mL of each grab included in the composite.

Wastewater samples must be handled, prepared, and analyzed by GC/MS in accordance with USEPA Methods 824 and 625 of 40 CFR 136 as amended.
  - b. The sludge shall be sampled and analyzed for the one hundred and ten (110) organic priority pollutants. A sludge sample shall be collected concurrent with a wastewater sample and taken as final sludge.
 

Sampling and analysis shall conform to USEPA Methods 624 and 625 unless an alternate method has been approved by IEPA.
  - c. Sample collection, preservation and storage shall conform to approved USEPA procedures and requirements.
3. In addition, the Permittee shall monitor any new toxic substances as defined by the Clean Water Act, as amended, following notification by the IEPA or USEPA.
4. Permittee shall report any noncompliance with effluent or water quality standards in accordance with Standard Condition 12(e) of this Permit.
5. Analytical detection limits shall be in accordance with 40 CFR 136. Minimum detection limits for sludge analyses shall be in accordance with 40 CFR 503.
- D. Pretreatment Reporting

USEPA Region 5 is the Approval Authority for administering the pretreatment program in Illinois. All requests for modification of pretreatment program elements should be submitted in redline/strikeout electronic format and must be sent to USEPA at [rsnodes@epa.gov](mailto:rsnodes@epa.gov).

Permittee shall upon notice from USEPA, modify any pretreatment program element found to be inconsistent with 40 CFR 403.

**SPECIAL CONDITION 11.** During January of each year the Permittee shall submit annual fiscal data regarding sewerage system operations to the Illinois Environmental Protection Agency/Division of Water Pollution Control/Compliance Assurance Section. The

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**SPECIAL CONDITION 12.** For the duration of this Permit, the Permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with average percent total solids analysis. The Permittee shall maintain adequate records of the quantities of sludge produced and have said records available for IEPA inspection. The Permittee shall submit to the IEPA, at a minimum, a semi-annual summary report of the quantities of sludge generated and disposed of, in units of dry tons or gallons (average total percent solids) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the IEPA by January 31 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

**Duty to Mitigate.** The Permittee shall take all reasonable steps to minimize any sludge use or disposal in violation of this Permit.

Sludge monitoring must be conducted according to test procedures approved under 40 CFR 136 unless otherwise specified in 40 CFR 503, unless other test procedures have been specified in this Permit.

**Planned Changes.** The Permittee shall give notice to the IEPA on the semi-annual report of any changes in sludge use and disposal.

The Permittee shall retain records of all sludge monitoring, and reports required by the Sludge Permit as referenced in Standard Condition 10 for a period of at least five (5) years from the date of this Permit.

If the Permittee monitors any pollutant more frequently than required by the Sludge Permit, the results of this monitoring shall be included in the reporting of data submitted to the IEPA.

The Permittee shall comply with existing federal regulations governing sewage sludge use or disposal and shall comply with all existing applicable regulations in any jurisdiction in which the sewage sludge is actually used or disposed.

The Permittee shall comply with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish the standards for sewage sludge use or disposal even if the permit has not been modified to incorporate the requirement.

The Permittee shall ensure that the applicable requirements in 40 CFR Part 503 are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

Monitoring reports for sludge shall be reported on the form titled "Sludge Management Reports" to the following address:

Illinois Environmental Protection Agency  
Bureau of Water  
Compliance Assurance Section  
Mail Code #19  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-0276

**SPECIAL CONDITION 13.** This Permit may be modified to include alternative or additional final effluent limitations pursuant to either an approved Total Maximum Daily Load (TMDL) Study or an approved Fox River Implementation Plan.

**SPECIAL CONDITION 14.** The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) B01.

Biomonitoring

1. **Acute Toxicity** - Standard definitive acute toxicity tests shall be run on at least two trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.) EPA/821-R-02-012. Unless substitute tests are pre-approved, the following tests are required:
  - a. Fish - 96 hour static LC<sub>50</sub> Bioassay using fathead minnows (*Pimephales promelas*).
  - b. Invertebrate 48-hour static LC<sub>50</sub> Bioassay using *Ceriodaphnia*.
2. **Testing Frequency** - The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the

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3. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be submitted to IEPA, Bureau of Water, Compliance Assurance Section within one week of receipt from the laboratory. Reports are due to the IEPA no later than the 16th, 13th, 10th, and 7th month prior to the expiration date of this Permit.
4. Toxicity - Should a bioassay result in toxicity to >20% of organisms test in the 100% effluent treatment, the IEPA may require, upon notification, six (6) additional rounds of monthly testing on the affected organism(s) to be initiated within 30 days of the toxic bioassay. Results shall be submitted to IEPA within (1) week of becoming available to the Permittee. Should any of the additional bioassays result in toxicity to  $\geq 60\%$  of organisms tested in the 100% effluent treatments, the Permittee shall immediately notify IEPA in writing of the test results.
5. Toxicity Reduction Evaluation and Identification - Should the biomonitoring program identify toxicity and result in notification by IEPA, the permittee shall develop a plan for toxicity reduction evaluation and identification. The plan shall be developed and implemented in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/633B-99/002, and shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days of notification of the permittee above or other such date as is received by letter from IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results and toxicity reduction evaluation, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants and additional whole effluent toxicity monitoring to confirm the results of the evaluation. Modifications under this condition shall follow public notice and opportunity for hearing.

**SPECIAL CONDITION 15.** The Permittee has undergone a Monitoring Reduction review and the Influent and effluent sample frequency has been reduced for BODs, CBODs, Suspended Solids, pH, and Ammonia Nitrogen due to sustained compliance. The IEPA will require that the Influent and effluent sampling frequency for these parameters be increased to 5 Days/Week if effluent deterioration occurs due to increased wastewater, operational, maintenance or other problems. The increased monitoring will be required Without Public Notice when a permit modification is received by the Permittee from the IEPA.

**SPECIAL CONDITION 16.** The Permittee shall monitor the wastewater effluent for Total Phosphorus, Dissolved Phosphorus, Nitrate/Nitrite, Total Kjeldahl Nitrogen (TKN), Ammonia, Total Nitrogen (calculated), Alkalinity and Temperature at least once a month beginning on the effective date of this permit. The results shall be submitted on Discharge Monitoring Report (DMR) Forms or NetDMRs to IEPA unless otherwise specified by the IEPA.

**SPECIAL CONDITION 17.** The Permittee shall participate in the Fox River Study Group (FRSG). The Permittee shall work with other watershed members of the FRSG to determine the most cost effective means to remove dissolved oxygen (DO) and offensive condition impairments in the Fox River. This Permit may be modified to include additional conditions and effluent limitations to include implementation measures based on the Fox River Implementation Plan (Implementation Plan). The following tasks will be completed during the life of this permit:

1. The Permittee shall prepare a phosphorus removal feasibility report specific to its plant(s) on the method, time frame and costs for reducing its loading of phosphorus to levels equivalent to monthly average discharges of 1 mg/L and 0.5 mg/L on a seasonal basis and on a year round basis. The feasibility report shall be submitted to the IEPA twelve (12) months from the effective date of the Permit. The feasibility report shall also be shared with the FRSG.
2. The Permittee shall submit the Fox River Study Group Watershed Investigation Phase III Report, which includes stream modeling, to the IEPA within 1 month of the effective date of this Permit.
3. The FRSG will complete an Implementation Plan that identifies phosphorus input reductions by point source discharges, non-point source discharges and other measures necessary to remove DO and offensive condition impairments in the Fox River. The Implementation Plan shall be submitted to the IEPA by December 31, 2016. The Permittee shall initiate the recommendations of the Implementation Plan that are applicable to said Permittee during the remaining term of this Permit. This Permit may be modified to include additional pollutant reduction activities necessary to implement the Implementation Plan.
4. In its application for renewal of this permit, the Permittee shall consider and incorporate recommended FRSG phosphorus input reduction implementation projects that the Permittee will implement during the next permit term.
5. The Permittee shall operate the existing facilities to optimize the removal of phosphorus.

**SPECIAL CONDITION 18.** A phosphorus limit of 1.0 mg/L (Annual Average) shall become effective four and one-half (4 1/2) years from

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removal, reduce phosphorus sources or explore other ways to prevent discharges that exceed the limit. The Permittee must implement the following compliance measures consistent with the schedule below:

- |   |  |
|---|--|
| 1. Interim Report on Phosphorus Removal Feasibility Report                            | 6 months from the effective date of this Permit  |
| 2. Phosphorus Removal Feasibility Report submitted                                    | 12 months from the effective date of this Permit |
| 3. Progress Report on Phosphorus Input Reductions and Implementation Plan             | 18 Months from the effective date of this Permit |
| 4. Progress Report on Recommendations of Implementation Plan                          | 24 months from the effective date of this Permit |
| 5. Plans and specifications submitted   | 30 months from the effective date of this Permit |
| 6. Progress Report on Construction  | 36 months from the effective date of this Permit |
| 7. Complete Construction  | 42 months from the effective date of this Permit |
| 8. Progress Report on Optimizing Treatment System                                     | 48 months from the effective date of this Permit |
| 9. Achieve Annual Concentration and Loading Effluent Limitations for Total Phosphorus | 54 months from the effective date of this Permit |

Compliance dates may be modified based on the results of the Phosphorus Removal Feasibility Report required by Special Condition 17 of this Permit. All modifications of this Permit must be in accordance with 40 CFR 122.62 or 40 CFR 122.63.

REPORTING

The Permittee shall submit progress reports for items 1, 2, 3, 4, 6, 7, 8 and 9 of the compliance schedule indicating: a) the date the item was completed, or b) that the item was not completed, the reasons for non-completion and the anticipated completion date to the Agency Compliance Section.

**SPECIAL CONDITION 19.** A zone of initial dilution (ZID) is recognized for chlorine with dimensions of 15 feet across the width of the river from the end-of-pipe and 15 feet downstream from this point. A mixing zone is recognized with dimensions extending 15 feet across the width of the river and 15 feet downstream.

**SPECIAL CONDITION 20.** The Permittee shall work towards the goals of achieving no discharges from sanitary sewer overflows or basement backups and ensuring that overflows or backups, when they do occur do not cause or contribute to violations of applicable standards or cause impairment in any adjacent receiving water. In order to accomplish these goals, the Permittee shall develop, implement and submit to the IEPA a Capacity, Management, Operations, and Maintenance (CMOM) plan within twelve (12) months of the effective date of this Permit. The Permittee should work as appropriate, in consultation with affected authorities at the local, county, and/or state level to develop the plan components involving third party notification of overflow events. The Permittee may be required to construct additional sewage transport and/or treatment facilities in future permits or other enforceable documents should the implemented CMOM plan indicate that the Permittee's facilities are not capable of conveying and treating the flow for which they were designed.

The CMOM plan shall include the following elements:

a. Measures and Activities:

1. A complete map of the collection system owned and operated by the Permittee;
2. Schedules, checklists, and mechanisms to ensure that preventative maintenance is performed on equipment owned and operated by the Permittee;
3. An assessment of the capacity of the collection and treatment system owned and operated by the Permittee at critical junctions and immediately upstream of locations where overflows and backups occur or are likely to occur; and
4. Identification and prioritization of structural deficiencies in the system owned and operated by the Permittee.

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2. Upgrade the elements of the CMOM plan as necessary; and
  3. Maintain summary of CMOM activities.
- c. **Overflow Response Plan:**
1. Know where overflows within the facilities owned and operated by the Permittee occur;
  2. Respond to each overflow to determine additional actions such as clean up; and
  3. Locations where basement back-ups and/or sanitary sewer overflows occur shall be evaluated as soon as practicable for excessive inflow/infiltration, obstructions or other causes of overflows or back-ups as set forth in the System Evaluation Plan.
- d. **System Evaluation Plan.**
- e. **Reporting and Monitoring Requirements.**
- f. **Third Party Notice Plan:**
1. Describes how, under various overflow scenarios, the public, as well as other entities, would be notified of overflows within the Permittee's system that may endanger public health, safety or welfare;
  2. Identifies overflows within the Permittee's system that would be reported, giving consideration to various types of events including events with potential widespread impacts;
  3. Identifies who shall receive the notification;
  4. Identifies the specific information that would be reported including actions that will be taken to respond to the overflow;
  5. Includes a description of the lines of communication; and
  6. Includes the identities and contact information of responsible POTW officials and local, county, and/or state level officials.

**SPECIAL CONDITION 21.** The Agency shall consider all monitoring data submitted by the discharger in accordance with the monitoring requirements of this permit for all parameters, including but not limited to data pertaining to ammonia and dissolved oxygen for discharges from Discharge Number 001, to determine whether the discharges are at levels which cause, have the reasonable potential to cause or contribute to exceedances of water quality standards; and, if so, to develop appropriate water quality based effluent limitations. If the discharger wants the Agency to consider mixing when determining the need for and establishment of water quality based effluent limitations, the discharger shall submit a study plan on mixing to the Agency for the Agency's review and comment within two (2) months of the effective date of this Permit.